

in "Rules for Building and Classing Steel Vessels", 1981.

[CGD 74-289, 44 FR 26009, May 3, 1979, as amended by CGD 77-069, 52 FR 31630, Aug. 21, 1987]

**§ 154.195 Aluminum cargo tank: Steel enclosure.**

(a) An aluminum cargo tank and its dome must be enclosed by the vessel's hull structure or a separate steel cover.

(b) The steel cover for the aluminum cargo tank must meet the steel structural standards of the American Bureau of Shipping published in "Rules for Building and Classing Steel Vessels", 1981.

(c) The steel cover for the aluminum tank dome must be:

- (1) At least 3.2 mm ( $\frac{1}{8}$  in.) thick;
- (2) Separated from the tank dome, except at the support points; and
- (3) Thermally isolated from the dome.

[CGD 74-289, 44 FR 26009, May 3, 1979, as amended by CGD 77-069, 52 FR 31630, Aug. 21, 1987]

SHIP SURVIVAL CAPABILITY AND CARGO TANK LOCATION

**§ 154.200 Stability requirements: General.**

Each vessel must meet the applicable requirements in subchapter S of this chapter.

[CGD 79-023, 48 FR 51009, Nov. 4, 1983]

**§ 154.235 Cargo tank location.**

(a) For type IG hulls, cargo tanks must be located inboard of:

- (1) The transverse extent of damage for collision penetration specified in Table 172.180 of this chapter;
- (2) The vertical extent of damage for grounding penetration specified in Table 172.180 of this chapter; and
- (3) 30 inches (760 mm) from the shell plating.

(b) For type IIG, IIPG, and IIIG hulls, cargo tanks must be located inboard of:

- (1) The vertical extent of damage for grounding penetration specified in Table 172.180 of this chapter; and
  - (2) 30 inches (760 mm) from the shell plating.
- (c) In vessels having membrane and semi-membrane tanks, the vertical and

transverse extents of damage must be measured to the inner hull.

(d) For type IIG, IIPG, and IIIG hulls, cargo tank suction wells may penetrate into the area of bottom damage specified as the vertical extent of damage for grounding penetration in Table 172.180 of this chapter if the penetration is the lesser of 25% of the double bottom height or 13.8 in. (350 mm).

[CGD 74-289, 44 FR 26009, May 3, 1979, as amended by CGD 79-023, 48 FR 51010, Nov. 4, 1983]

SHIP ARRANGEMENTS

**§ 154.300 Segregation of hold spaces from other spaces.**

Hold spaces must be segregated from machinery and boiler spaces, accommodation, service and control spaces, chain lockers, potable, domestic and feed water tanks, store rooms and spaces immediately below or outboard of hold spaces by a:

(a) Cofferdam, fuel oil tank, or single gastight A-60 Class Division of all welded construction in a cargo containment system not required by this part to have a secondary barrier;

(b) Cofferdam or fuel oil tank in a cargo containment system required by this part to have a secondary barrier; or

(c) If there are no sources of ignition or fire hazards in the adjoining space, single gastight A-O Class Division of all welded construction.

**§ 154.305 Segregation of hold spaces from the sea.**

In vessels having cargo containment systems required by this part to have a secondary barrier, hold spaces must be segregated from the sea by:

(a) A double bottom if the cargo tanks meet this part for design temperatures colder than  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ); and

(b) Wing tanks if the cargo tanks meet this part for design temperatures colder than  $-55^{\circ}\text{C}$  ( $-67^{\circ}\text{F}$ ).

**§ 154.310 Cargo piping systems.**

Cargo liquid or vapor piping must:

(a) Be separated from other piping systems, except where an interconnection to inert gas or purge piping is required by § 154.901(a);